5 SPRINKLER PLANS 1 - FOR REFERENCE ONLY

Scale: NTS

UNDERGROUND PIPE NOTES

1. THIS SITE PLAN IS FOR REFERENCE ONLY.
2. SEE ARCHITECTURAL AND CIVIL DRAWINGS FOR ADDITIONAL INFORMATION AND DIMENSIONS.
3. ALL UNDERGROUND PIPING IS TO BE INSTALLED BY A CONTRACTOR HAVING A VALID WASHINGTON STATE 'U' LEVEL CERTIFICATION.
4. ALL UNDERGROUND PIPE TO BE INSTALLED RODDED AND/OR BACKED, UNLESS ALLOWED PER NFPA 13 & 24.
5. MINIMUM FLOW RATES FOR FIRE MAINS:
   - 4" 490 GPM 10" 2440 GPM
   - 6" - 880 GPM 12" - 3520 GPM
   - 8" - 1,560 GPM
6. MINIMUM BURY 4'-0".
7. PATROL START POINT AT FLANGES A.F.F. INSIDE BUILDING.

INSTALLATION NOTE

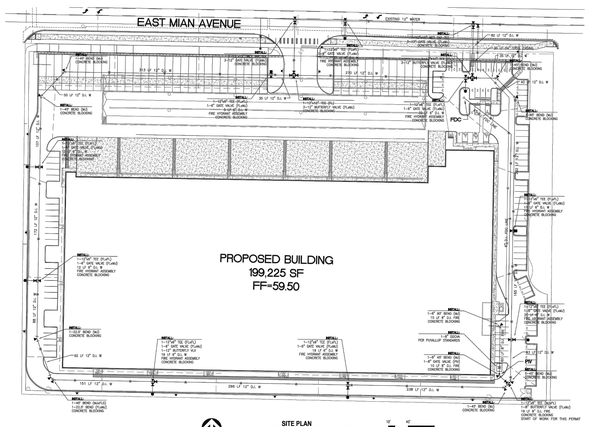
ALL WORK ON THE UNDERGROUND PORTIONS OF FIRE PROTECTION SPRINKLER SYSTEMS MUST BE INSTALLED AND CERTIFIED BY A CONTRACTOR HAVING A VALID WASHINGTON STATE 'U' LEVEL CERTIFICATION. SUBCONTRACTING OF SUCH WORK TO PERSONS OR FIRMS NOT CURRENTLY LICENSED AS A FIRE PROTECTION SPRINKLER SYSTEM CONTRACTOR IS PROHIBITED UNDER WAC 212-80.

GENERAL NOTES

1. FOR WORKING CLEARANCE, AN UNOBSTRUCTED 3-FOOT RADIUS SHALL BE MAINTAINED AROUND THE PIV AND FDC

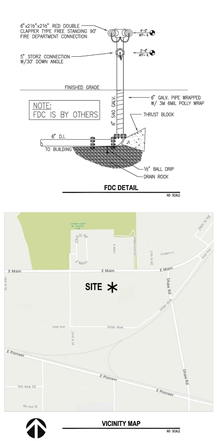
FLOW TEST

STATIC	55 PSI
RESIDUAL	45 PSI
FLOW	1,182 GPM
LOCATION	EAST MAIN



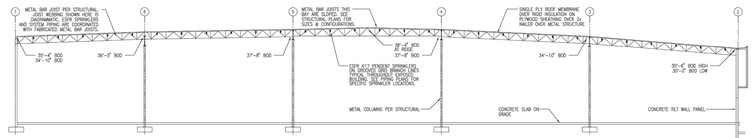
SITE PLAN

SCALE 1" = 40'



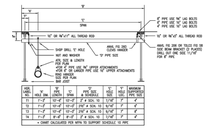
VICINITY MAP

FDC DETAIL



A FP-2 BUILDING SECTION

SCALE 1/32"=1'-0"



SPRINKLER MAIN HANGER "T" PARALLEL TO JOISTS

GENERAL NOTES:

1. 16.8K ESFR SPRINKLERS SHALL BE INSTALLED PER NFPA 13 SECTION 8.17. 16.8K ESFR SPRINKLERS SHALL BE INSTALLED SO THE DEFLECTORS ARE NOT MORE THAN 14" AND NOT LESS THAN 6" BELOW THE CEILING PER NFPA 13 SECTION 8.12.4.1.2.
2. LATERAL BRACING IS NOT REQUIRED ON 2½" & 3" BRANCH LINES WHEN INSTALLED PER NFPA 13 SECTION 9.3.5.5.10. ALL 2½" AND 3" BRANCH LINES ARE TO BE INSTALLED PER SECTION 9.3.5.5.10. LATERAL SWAY BRACING IS NOT REQUIRED. HANGER RODS TO BE LESS THAN 6" WHEN MEASURED BETWEEN TOP OF PIPE AND POINT OF ATTACHMENT TO BUILDING STRUCTURE.
4. HVLS (HIGH VELOCITY- LOW SPEED) FANS SHALL BE CENTERED BETWEEN 4 ESFR SPRINKLERS AND LOCATED TO THAT THE TOP OF THE FAN BLADES ARE LOCATED A MINIMUM OF 36" BELOW THE SPRINKLER DEFLECTORS. HVLS FANS SHALL BE WIRED TO SHUT DOWN UPON ACTIVATION OF SPRINKLER SYSTEM WATER FLOW SWITCHES.

DESIGN CRITERIA:

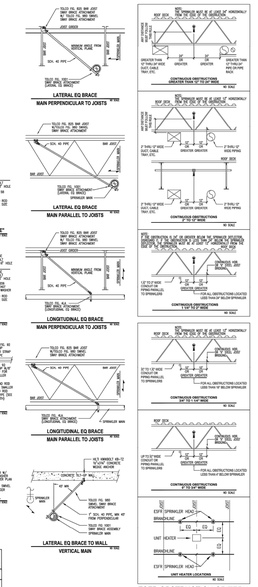
ACTUAL STORAGE HEIGHTS VARY – 36" MUST BE MAINTAINED BETWEEN TOP OF STORAGE AND ESFR SPRINKLER DEFLECTORS

1. STORAGE AREAS: ROOF HEIGHTS 40 FT & LESS
   DESIGN STANDARD IS NFPA 13 USING RELIABLE'S JL-17 ESFR PENDANT SPRINKLER HEAD WITH A MINIMUM FLOW PRESSURE OF 52 PSI WITH A MAXIMUM 40' HIGH ROOF. THIS DESIGN ALLOWS FOR STORAGE OF THE FOLLOWING COMMODITIES:
   PALLETIZED AND SOLID PILED STORAGE: PER TABLES 14.4.1 & 15.4.1 (NO OPEN TOP CONTAINERS)
   A. CLASS I–IV ENCAPSULATED COMMODITIES
      MAXIMUM STORAGE HEIGHT = 35'-0"
   B. CARTONED NONEXPANDED PLASTICS
      MAXIMUM STORAGE HEIGHT = 35'-0"
   C. EXPOSED NONEXPANDED PLASTICS
      MAXIMUM STORAGE HEIGHT = 35'-0"
   RACK STORAGE: PER TABLES 16.3.3.1 & 17.3.3.1
   SINGLE–ROW, DOUBLE–ROW, & MULTIPLE–ROW RACKING (WITHOUT SOLID SHELVING)
   (NO OPEN TOP CONTAINERS)
   A. CLASS I–IV ENCAPSULATED OR NONENCAPSULATED COMMODITIES
      MAXIMUM STORAGE HEIGHT = 35'-0"
   B. CARTONED NONEXPANDED PLASTICS
      MAXIMUM STORAGE HEIGHT = 35'-0"
   C. EXPOSED NONEXPANDED PLASTICS
      MAXIMUM STORAGE HEIGHT = 35'-0"
   IDLE PALLET STORAGE: PER TABLES 12.12.1.2(c) & 12.12.2.2.3
   A. WOOD OR PLASTIC PALLETS STORED ON FLOOR OR RACKING (WITHOUT SOLID SHELVES)
      MAXIMUM STORAGE HEIGHT = 35'-0"
2. FIRE RISER & ELEC. ROOMS:
   ORDINARY HAZARD OCCUPANCY
3. OFFICE SPACES:
   LIGHT HAZARD OCCUPANCY

SEISMIC BRACING LEGEND

BRACE NUMBER	SIZE OF BRACED MAIN	SIZE OF BRACE PIPE	MAX LENGTH BRACE PIPE	MAIN ATTACHMENT	STRUCTURAL ATTACHMENT	MINIMUM BRACE ANGLE	MAXIMUM SPACING
SB–1	6" SCH10	1" SCH40	3'–6"	FIG 1001	4B–T2 1¼x3¼x	45°	20'–0"
SB–2	6" SCH10	1" SCH40	3'–6"	FIG 4L	4B–T2 1¼x3¼x	60°	13'–0"
SB–3	6" SCH10	1" SCH40	3'–6"	FIG 1001	4B–T2 1¼x3¼x	45°	20'–0"
SB–4	6" SCH10	1" SCH40	3'–6"	FIG 4L	4B–T2 1¼x3¼x	60°	33'–0"
SB–5	6" SCH10	1¼" SCH40	9'–0"	FIG 1001	FIG 825	60°	10'–0"
SB–6	6" SCH10	1" SCH40	10'–4"	FIG 1001	FIG 825	60°	40'–0"
SB–7	6" SCH10	1½" SCH40	10'–5"	FIG 4L	FIG 825	60°	80'–0"
SB–8	6" SCH10	1" SCH40	7'–0"	FIG 4L	FIG 825	45°	80'–0"
SB–9	6" SCH10	1¼" SCH40	9'–0"	FIG 1001	FIG 825	60°	10'–0"
SB–10	6" SCH10	1¼" SCH40	9'–0"	FIG 4L	FIG 825	60°	80'–0"
SB–11	6" SCH10	1½" SCH40	10'–5"	FIG 2002	FIG 825	60°	40'–0"
SB–12	6" SCH10	1" SCH40	10'–4"	FIG 1001	FIG 825	60°	10'–0"
SB–13	6" SCH10	1" SCH40	7'–0"	FIG 4L	FIG 825	45°	80'–0"
SB–14	6" SCH10	1" SCH40	7'–0"	FIG 4L	FIG 825	60°	80'–0"
SB–15	6" SCH10	1" SCH40	7'–0"	FIG 1001	FIG 825	60°	10'–0"
SB–16	6" SCH10	1¼" SCH40	10'–2"	FIG 2002	FIG 825	60°	10'–0"
SB–17	6" SCH10	1" SCH40	10'–4"	FIG 4L	FIG 825	60°	80'–0"

NOTE: THIS IS AN EARLY SUPPRESSION FAST RESPONSE SPRINKLER SYSTEM. BRANCH LINE & SPRINKLER HEAD LOCATIONS ARE CRITICAL. E.S.F.R. SYSTEMS REQUIRE SPECIAL CONSIDERATION REGARDING PLACEMENT OF LIGHTING, DUCT WORK, PROCESS PIPING, ELECTRICAL CONDUIT RUNS, ETC. SPRINKLER PIPING CAN NOT BE ROUTED AROUND OBSTRUCTIONS DUE TO INCREASED FRICTION LOSSES OR LIMITED FROM ROOF STRUCTURE DUE TO CODE REQUIREMENTS. IT IS UNDERSTOOD THAT REQUIRED COORDINATION WITH THE ROOF STRUCTURE, JOIST PANEL POINTS, JOIST BRACING, DUCT WORK, LIGHTING, ELECTRICAL CONDUIT AND OTHER PIPING WILL BE ACCOMPLISHED TO PROVIDE THE CLEARANCE REQUIRED FOR AN E.S.F.R. SYSTEM.



SYSTEM #1	SHEET FP–3
SYSTEM #2	SHEET FP–4
SYSTEM #3	SHEET FP–5
SYSTEM #4	SHEET FP–6
SYSTEM #5	SHEET FP–7

PUMP & RISERS LOCATED HERE, SHEET FP–8

KEY PLAN

AS-BUILT

STATE CERTIFICATION | FITTING LEGEND | HANGER LEGEND | GENERAL NOTES | SPRINKLER HEAD LEGEND | APPROVAL REQUIRED | SPRINKLER LEGEND

DESIGN CRITERIA: SEE NOTES SHEET FP-2

PIPE NOTES: 1. WELDED/GROOVED MAIN PIPING TO BE SCH. 10 BLACK PIPE. 2. WELDED/GROOVED BRANCH LINE PIPING TO BE SCH. 10 BLACK PIPE. 3. THREADED PIPING TO BE SCH. 40 BLACK PIPE.

REVISIONS

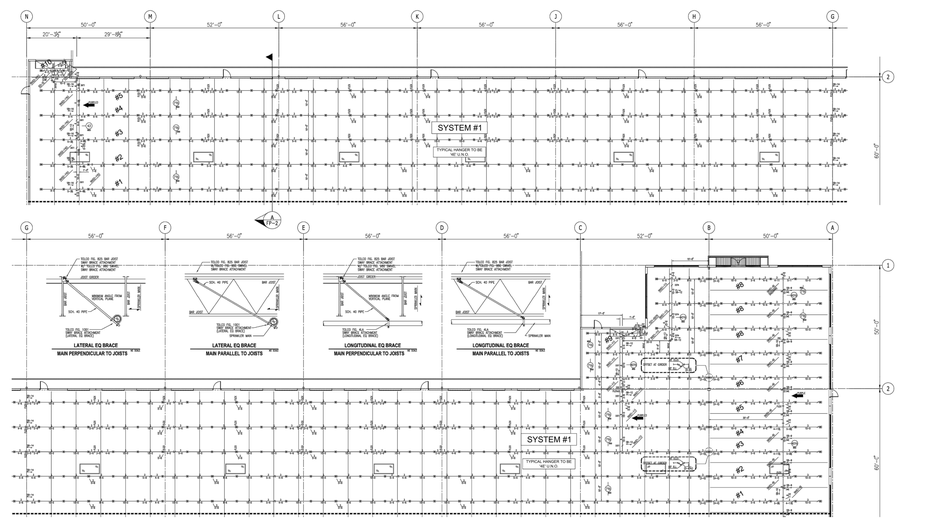
REV. NO.	DATE	BY	DESCRIPTION
1	01-31-22	JW	AS-BUILT SET

CONTACT INFO: POE CONSTRUCTION, 1555 W. 16TH ST., SUITE 160, TACOMA, WA 98405, CLAY JOHNSON: 253-833-0400

PROJECT NAME: PUYALLUP LOGISTICS CENTER, 2504 EAST MAIN, PUYALLUP, WA 98372, RIVER SHAW

PATRIOT FIRE PROTECTION, INC., 2407 76TH AVENUE EAST, TACOMA, WA 98404, TEL: (253) 926-2300, FAX: (253) 922-5126, PROGRAM MANAGER: DAVID CLOUGHER, davidc@patriotfire.com, FIRE SPRINKLERS DAVE LOWE

DESIGNER: PATRIO SEAMONS | DATE: 01-31-22 | SHEET: FP-1 | JOB NO.: T1-22002 | 1 OF 8



SYSTEM #1 FIRE SPRINKLER PLAN

SCALE 1/32" = 1'-0"

SPRINKLER MAIN HANGER "T" PARALLEL TO JOISTS

SPRINKLER BRANCHLINE HANGER "E" PERPENDICULAR TO JOISTS

SPRINKLER MAIN HANGER "E" PERPENDICULAR TO JOISTS

SPRINKLER HANGER "D" PERPENDICULAR TO JOISTS

SYSTEM #1	SHEET FP–3
SYSTEM #2	SHEET FP–4
SYSTEM #3	SHEET FP–5
SYSTEM #4	SHEET FP–6
SYSTEM #5	SHEET FP–7

PUMP & RISERS LOCATED HERE, SHEET FP–8

KEY PLAN

ESFR OBSTRUCTION CRITERIA

NOTE: THIS IS AN EARLY SUPPRESSION FAST RESPONSE SPRINKLER SYSTEM. BRANCH LINE & SPRINKLER HEAD LOCATIONS ARE CRITICAL. E.S.F.R. SYSTEMS REQUIRE SPECIAL CONSIDERATION REGARDING PLACEMENT OF LIGHTING, DUCT WORK, PROCESS PIPING, ELECTRICAL CONDUIT RUNS, ETC. SPRINKLER PIPING CAN NOT BE ROUTED AROUND OBSTRUCTIONS DUE TO INCREASED FRICTION LOSSES OR LIMITED FROM ROOF STRUCTURE DUE TO CODE REQUIREMENTS. IT IS UNDERSTOOD THAT REQUIRED COORDINATION WITH THE ROOF STRUCTURE, JOIST PANEL POINTS, JOIST BRACING, DUCT WORK, LIGHTING, ELECTRICAL CONDUIT AND OTHER PIPING WILL BE ACCOMPLISHED TO PROVIDE THE CLEARANCE REQUIRED FOR AN E.S.F.R. SYSTEM.

AS-BUILT

STATE CERTIFICATION | FITTING LEGEND | HANGER LEGEND | GENERAL NOTES | SPRINKLER HEAD LEGEND | APPROVAL REQUIRED | SPRINKLER LEGEND

DESIGN CRITERIA: SEE NOTES SHEET FP-2

PIPE NOTES: 1. WELDED/GROOVED MAIN PIPING TO BE SCH. 10 BLACK PIPE. 2. WELDED/GROOVED BRANCH LINE PIPING TO BE SCH. 10 BLACK PIPE. 3. THREADED PIPING TO BE SCH. 40 BLACK PIPE.

REVISIONS

REV. NO.	DATE	BY	DESCRIPTION
1	01-31-22	JW	AS-BUILT SET

CONTACT INFO: POE CONSTRUCTION, 1555 W. 16TH ST., SUITE 160, TACOMA, WA 98405, CLAY JOHNSON: 253-833-0400

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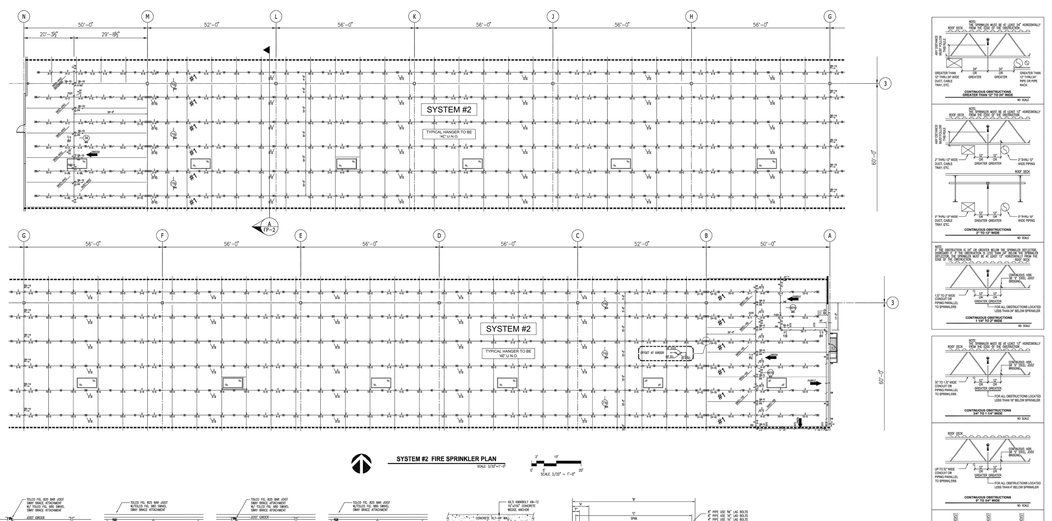
DESIGNER: PATRIO SEAMONS | DATE: 01-31-22 | SHEET: FP-3 | JOB NO.: T1-22002 | 2 OF 8



SYSTEM #2 FIRE SPRINKLER PLAN

SCALE 1/32" = 1'-0"

SPRINKLER MAIN HANGER "T" PARALLEL TO JOISTS

SPRINKLER BRANCHLINE HANGER "E" PERPENDICULAR TO JOISTS

SPRINKLER MAIN HANGER "E" PERPENDICULAR TO JOISTS

SPRINKLER HANGER "D" PERPENDICULAR TO JOISTS

SPRINKLER HANGER "W" TO WALL

SYSTEM #1	SHEET FP–3
SYSTEM #2	SHEET FP–4
SYSTEM #3	SHEET FP–5
SYSTEM #4	SHEET FP–6
SYSTEM #5	SHEET FP–7

PUMP & RISERS LOCATED HERE, SHEET FP–8

KEY PLAN

ESFR OBSTRUCTION CRITERIA

NOTE: THIS IS AN EARLY SUPPRESSION FAST RESPONSE SPRINKLER SYSTEM. BRANCH LINE & SPRINKLER HEAD LOCATIONS ARE CRITICAL. E.S.F.R. SYSTEMS REQUIRE SPECIAL CONSIDERATION REGARDING PLACEMENT OF LIGHTING, DUCT WORK, PROCESS PIPING, ELECTRICAL CONDUIT RUNS, ETC. SPRINKLER PIPING CAN NOT BE ROUTED AROUND OBSTRUCTIONS DUE TO INCREASED FRICTION LOSSES OR LIMITED FROM ROOF STRUCTURE DUE TO CODE REQUIREMENTS. IT IS UNDERSTOOD THAT REQUIRED COORDINATION WITH THE ROOF STRUCTURE, JOIST PANEL POINTS, JOIST BRACING, DUCT WORK, LIGHTING, ELECTRICAL CONDUIT AND OTHER PIPING WILL BE ACCOMPLISHED TO PROVIDE THE CLEARANCE REQUIRED FOR AN E.S.F.R. SYSTEM.

AS-BUILT

STATE CERTIFICATION | FITTING LEGEND | HANGER LEGEND | GENERAL NOTES | SPRINKLER HEAD LEGEND | APPROVAL REQUIRED | SPRINKLER LEGEND

DESIGN CRITERIA: SEE NOTES SHEET FP-2

PIPE NOTES: 1. WELDED/GROOVED MAIN PIPING TO BE SCH. 10 BLACK PIPE. 2. WELDED/GROOVED BRANCH LINE PIPING TO BE SCH. 10 BLACK PIPE. 3. THREADED PIPING TO BE SCH. 40 BLACK PIPE.

REVISIONS

REV. NO.	DATE	BY	DESCRIPTION
1	01-31-22	JW	AS-BUILT SET

CONTACT INFO: POE CONSTRUCTION, 1555 W. 16TH ST., SUITE 160, TACOMA, WA 98405, CLAY JOHNSON: 253-833-0400

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DESIGNER: PATRIO SEAMONS | DATE: 01-31-22 | SHEET: FP-4 | JOB NO.: T1-22002 | 3 OF 8

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REV. NO.	DESCRIPTION:	REV. DATE:	REV. BY:
0	INITIAL RELEASE	09/14/2022	JON TOSKI

REVISIONS

CUSTOMER:

RED DOT CORPORATION

2504 EAST MAIN
PUYALLUP, WA 98372

SHEET NAME:

SPRINKLER PLANS 1

STRUCTURAL STAMP

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DATE: 09/14/2022

SCALE: NTS

DRAWN BY: J.TOSTANOSKI

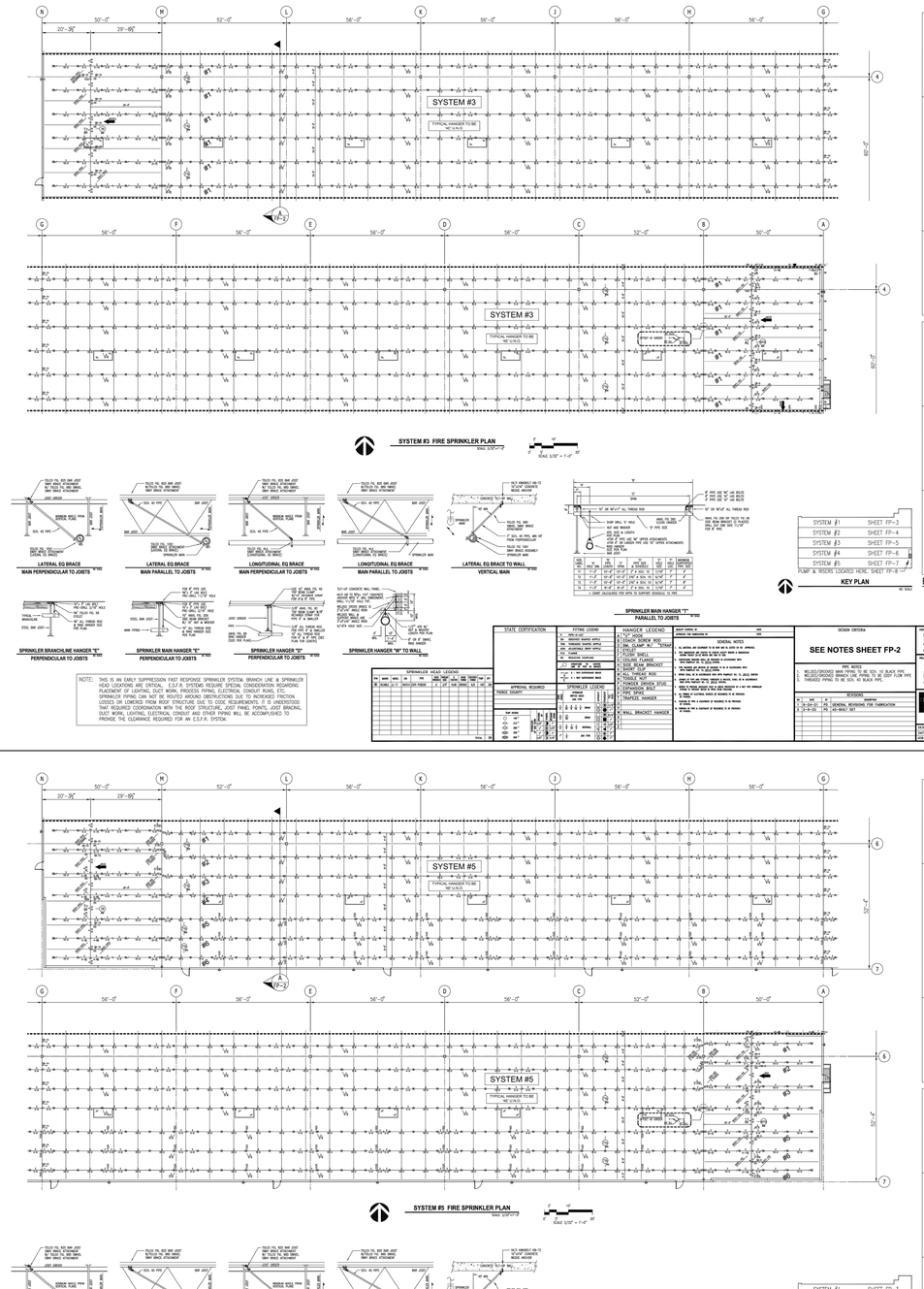
PROJECT #: 100713607

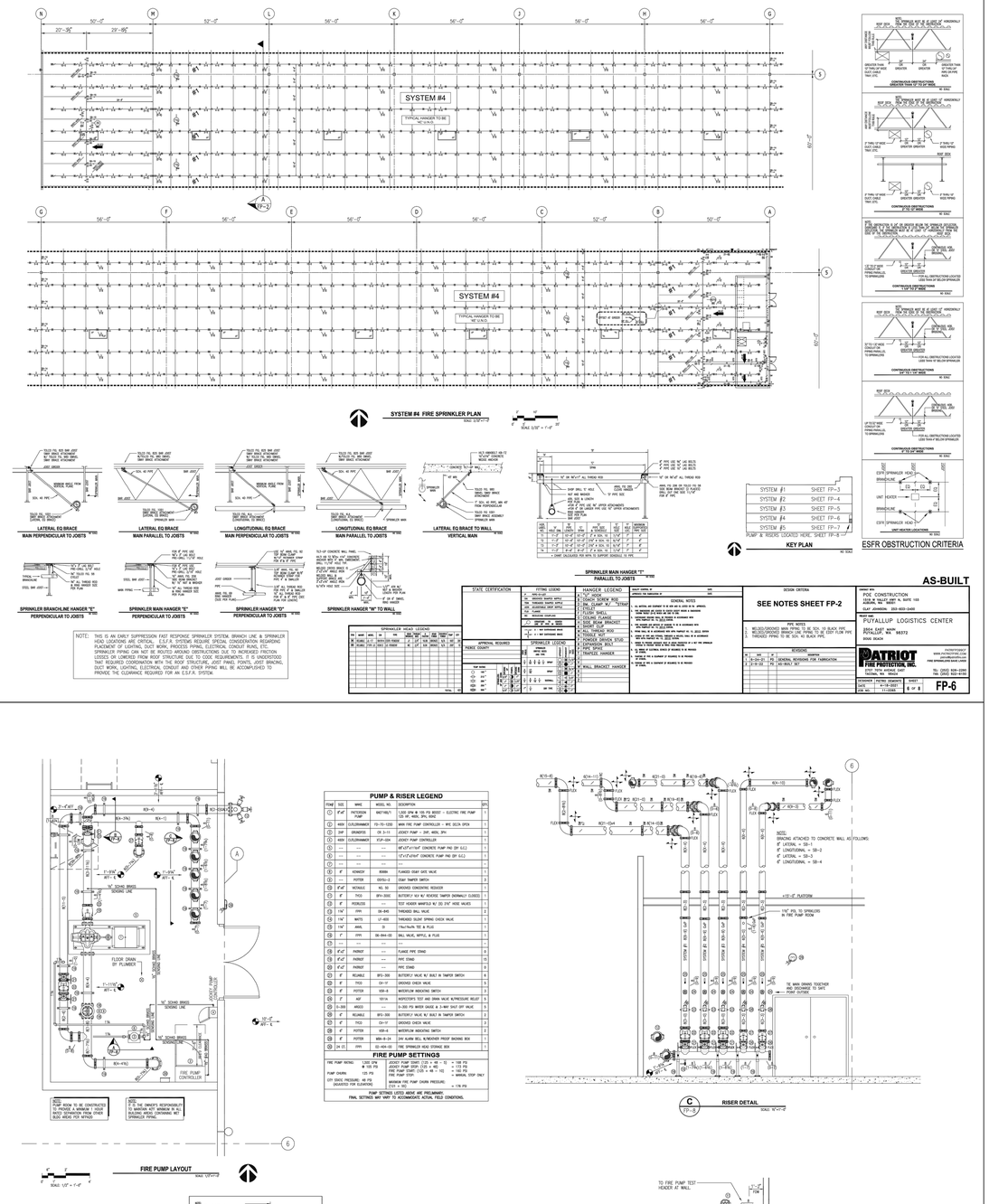
SHEET NUMBER: SS5

REV: 0

6 SPRINKLER PLANS 2 - FOR REFERENCE ONLY

Scale: NTS





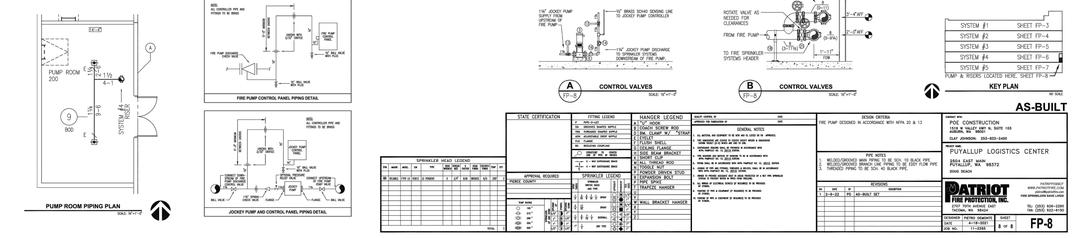
PUMP & RISER LEGEND

ITEM	SIZE	MARK	MODEL NO.	DESCRIPTION	QTY.
(1)	4"x4"	PATTERSON PUMP	MATTMX/1	1,500 GPM @ 105 PSI BOOST - ELECTRIC FIRE PUMP 125 HP, 460V, 3PH, 60HZ	1
(2)	480V	CLEUTUMANUAL	FU-TD-1202	MAIN FIRE PUMP CONTROLLER - NFPC DELTA SPCH	1
(3)	3HP	GRUNDFOS	CR 3-11	JOCKEY PUMP - 3HP, 460V, 3PH	1
(4)	460V	CLEUTUMANUAL	JCP-UD4	JOCKEY PUMP CONTROLLER	1
(5)	---	---	---	48"x12"x11'-6" CONCRETE PUMP PAD (BY G.C.)	1
(6)	---	---	---	12'x12'x24" CONCRETE PUMP PAD (BY G.C.)	1
(7)	---	---	---	---	1
(8)	6"	KENNEDY	R606W	FLANGED GRAY GATE VALVE	1
(9)	---	POTTER	OSYSU-2	OS&Y TAMPER SWITCH	3
(10)	6"x4"	NICHOLAS	NL 90	GROOVED CONCENTRIC REDUCER	3
(11)	6"	TYCO	DFV-300C	BUTTERFLY VLV W/ VICKERS TAMPER (NORMALLY CLOSED)	1
(12)	6"	MUENZER	---	TEST HEADER WANIFOLD W/ (5) 2½" MESC VALVES	1
(13)	1½"	FIPA	30-845	THREADED BALL VALVE	2
(14)	1½"	WATTS	LF-601	THREADED DUCTILE SPRING CHECK VALVE	1
(15)	1½"	ANVIL	3	1½x1½x1½ TEE W/ PLUG	1
(16)	1"	FIPA	30-844-00	BALL VALVE, NIPPLE, & PLUG	1
(17)	---	---	---	---	1
(18)	6"x4"	PHENOT	---	FLANGE PIPE COUPLING	8
(19)	6"x4"	PHENOT	---	PIPE COUPLING	15
(20)	6"x4"	PHENOT	---	PIPE COUPLING	8
(21)	6"	MUENZER	BFU-300	BUTTERFLY VALVE W/ BUILT IN TAMPER SWITCH	4
(22)	6"	TYCO	CH-1F	GROOVED CHECK VALVE	5
(23)	6"	POTTER	VSR-6	WATERFLOW MONITORING SWITCH	3
(24)	6"	AGF	101H	INSPECTOR'S TEST AND DRAIN VALVE W/PRESSURE RELIEF	5
(25)	3-300	MUESCO	---	3-300 PSI WATER GAUGE W 3-WAY BALL COCK	5
(26)	6"	MUENZER	BFU-300	BUTTERFLY VALVE W/ BUILT IN TAMPER SWITCH	3
(27)	6"	TYCO	CH-1F	GROOVED CHECK VALVE	2
(28)	6"	POTTER	VSR-6	WATERFLOW MONITORING SWITCH	2
(29)	6"	POTTER	WMA-8-24	24V ALARM BELL W/MOUNTER PROOF ENCRONS BOX	1
(30)	24 (1)	FIPA	(1)-444-01	FIRE SPRINKLER HOSE-STORAGE BOX	1

FIRE PUMP SETTINGS

FIRE PUMP RATING:	1,500 GPM @ 105 PSI	JOCKEY PUMP START (CO + 40 - 0) = 108 PSI	
		JOCKEY PUMP STOP (CO + 46) = 113 PSI	
PUMP CHAIN:	125 PSI	FIRE PUMP START (CO + 46 - 10) = 103 PSI	
		FIRE PUMP STOP = MANUAL STOP ONLY	
CITY DISC PRESSURE: (AS-BUILT FOR ELEVATION)	48 PSI	MINIMUM FIRE PUMP CHAIN PRESSURE: (CO + 10) = 176 PSI	

PUMP SETTINGS LISTED ABOVE ARE PRELIMINARY.
FINAL SETTINGS MAY VARY TO ACCOMMODATE ACTUAL FIELD CONDITIONS.



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REV. NO.	DESCRIPTION	REV. DATE:	REV. BY:
0	INITIAL RELEASE	09/14/2022	JON TOSKI

REVISIONS

CUSTOMER:

RED DOT CORPORATION

2504 EAST MAIN
PUYALLUP, WA 98372

SHEET NAME:

SPRINKLER PLANS 2

STRUCTURAL STAMP

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RED_DOT_CORPORATION_100713607_P.DWG

DATE: 09/14/2022
SCALE: NTS
DRAWN BY: J.TOSTANOSKI
PROJECT #: 100713607
SHEET NUMBER: SS6
REV: 0